

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



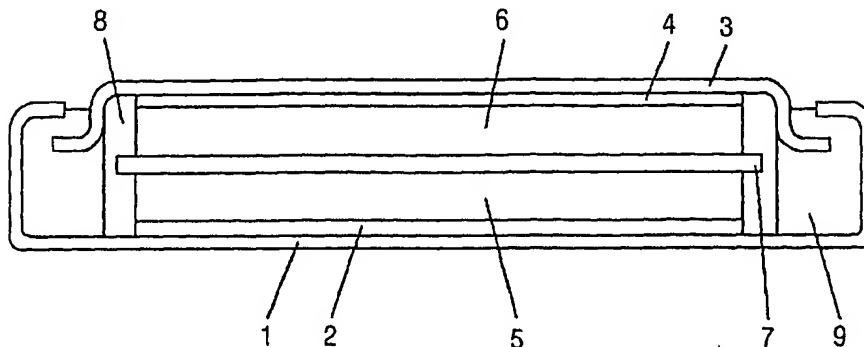
(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/013395 A1

- (51) International Patent Classification⁷: **H01M 4/48**
- (21) International Application Number:
PCT/KR2004/001897
- (22) International Filing Date: 28 July 2004 (28.07.2004)
- (25) Filing Language: Korean
- (26) Publication Language: English
- (30) Priority Data:
10-2003-0052889 30 July 2003 (30.07.2003) KR
- (71) Applicant (for all designated States except US): **LG CHEM, LTD.** [KR/KR]; LG Twin Tower, 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **CHOI, Seung-Don** [KR/KR]; 103-605, Cheonggu Narac Apartment, Jeonmin-dong, Yuseong-gu, Daejeon 305-761 (KR). **KIM, Hyeong-Jin** [KR/KR]; 302, Hanwool Villa, 295-4, Jeonmin-dong, Yuseong-gu, Daejeon 305-761 (KR).
- (74) Agent: **KIM, Seong-Ki**; 14F, Kukdong Building, 60-1, Chungmuro3-ka, Chung-ku, Seoul 100-705 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LITHIUM ION BATTERY HAVING AN IMPROVED CONSERVED PROPERTY AT A HIGH TEMPERATURE



(57) Abstract: Disclosed are a cathode for a battery and a lithium ion battery. The cathode for a battery comprises a metal hydroxide having a large specific surface area as a cathode additive. The lithium ion battery comprises a cathode, an anode and a non-aqueous electrolyte, wherein the cathode comprises a metal hydroxide having a large specific surface area as a cathode additive. When a metal hydroxide having a large specific surface area is used as a cathode additive, excellent storage properties of a battery at a high temperature can be obtained, even if the metal hydroxide is used in a small amount.

WO 2005/013395 A1